

the characters, ii) adjusting color weights of the characters, iii) justifying the text string, iv) centering the text string, v) adjusting dimensions of strokes defining the characters, vi) aligning the characters with a baseline, vii), positioning the text string to two or more lines, viii) adjusting the spacing between two or more lines of text, ix) adjusting the vertical or horizontal alignment of the characters, x) adjusting a relative size of each character, xi) adjusting pixels defining the character and xii) and adjusting texels defining the character.

61. The method of claim 51, further comprising:

wherein one or more of a shape of the text page surface, a position of the text page surface or an orientation of the text page surface changes as a function of time.

62. The method of claim 51, wherein a shape of the text page surface is a planar rectangle.

63. The method of claim 51, wherein a shape of the text page surface is a planar multisided polygon.

64. The method of claim 51, wherein a shape of the text page surface is a 3-D surface.

65. The method of claim 51, wherein the text page surface is invisible.

66. The method of claim 51, further comprising applying one or a static texture, an animated texture or combinations thereof to the text page surface.

67. The method of claim 51, further comprising clipping a portion of a first 3-D object that extends beyond a boundary defined by the text page surface.

68. The method of claim 51, further comprising scaling the one or more 3-D objects to fit within boundaries defined by the text page surface.

69. The method of claim 51, wherein each of the 3-D objects is comprised of two triangular polygons.

70. The method of claim 51, wherein one or more of a shape, a position and an angular orientation of the 3-D objects change as a function of time in the 3-D gaming environment.

71. The method of claim 51, further comprising:

calculating texture coordinates for each of the 3-D objects and mapping a first character from the font texture using the texture coordinates to a first 3-D object.

72. The method of claim 51, wherein the font parameters are one or more of a font name, a font style, a font typeface, a font weight, a font baseline, a font ascent, a font descent, a font slant, a font maximum height, a font maximum width and a number of characters in the font texture.

73. The method of claim 51, wherein the character parameters are one or more of a character height, a character width, a character ascent, a character descent, a character origin, character information for indicating where to place an adjacent character, a character shape or character location coordinates for locating the character in the font texture.

74. The method of claim 51, further comprising:

locating a first character in the font texture using character locating coordinates.

75. A gaming machine comprising:

a housing;

a master gaming controller coupled to the housing designed or configured to control a game of chance played on the gaming machine;

a three-dimensional (3-D) gaming environment for rendering at least a game outcome presentation for the game of chance stored on a memory device on the gaming machine;

game logic for rendering one or more two-dimensional images derived from 3-D objects in the 3-D gaming environment wherein at least one of the 3-D objects is a 3-D text object adapted for conveying textual information;

at least one display devices for displaying the rendered one or more two-dimensional images wherein the gaming machine is operable i) to receive cash or indicia of credit for a wager on the game of chance and ii) to output cash or an indicia of credit as an award for the game of chance.

76. The gaming machine of claim 75, further comprising:

a 3-D graphical rendering system for rendering the one or more 2-D images.

77. The gaming machine of game **75**, further comprising:

game logic designed or configured for rendering textual information from a gaming machine maintenance operation in the 3-D gaming environment using a plurality of the 3-D text objects and to capture the gaming machine maintenance operation on the one or more two-dimensional images.

78. The gaming machine of claim 75, further comprising:

game logic designed or configured for rendering textual information from one or more of i) a gaming machine operational feature, ii) a gaming machine maintenance operation in the 3-D gaming environment, iii) an attract mode feature, iv) a promotional feature, v) casino information or vi) a bonus game presentation using a plurality of the 3-D text objects and to capture the gaming machine operation feature on the one or more two-dimensional images.

79. The gaming machine of claim 75, wherein a three-dimensional position of the 3-D object is time varying.

80. The gaming machine of claim 75, further comprising:

a graphical processing unit, separate from said master gaming controller, designed or configured to execute the graphical operations used to render one or more two-dimensional images derived from the 3-D objects in the 3-D gaming environment.

81. The gaming machine of claim 75, further comprising:

a network interface board designed or configured to allow the master gaming controller to communicate rendered textual information to a remote display device.

82. The gaming machine of claim 81, wherein the master gaming controller communicates with the remote display device via at least one of a local area network, a wide area network and the Internet.

83. The gaming machine of claim 75, wherein the game of chance is selected from the group consisting of a slot game, a keno game, a poker game, a pachinko game, a video black jack game, a bingo game, a baccarat game, a roulette game, a dice game and a card game.